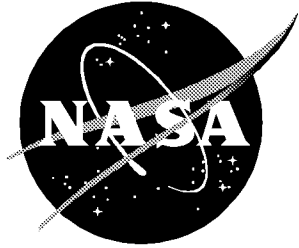


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NASA Langley Scientific and Technical Information Output—1998

*Harriet B. Machie and Susan H. Stewart, Compilers
Langley Research Center, Hampton, Virginia*

February 1999

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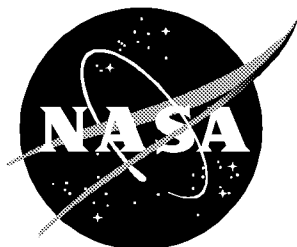
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Preface

This report contains a listing of the NASA Langley Research Center's publicly available scientific and technical research output for C.Y. 1998.

The intent of this report is to provide a greater awareness of the broad scope of results and the importance of the research and development work conducted by scientists and engineers at Langley. This current awareness is mandated by the National Aeronautics and Space Act of 1958, which provides for the widest practical dissemination of NASA research.

During C.Y. 1998, Langley's contributions to NASA and non-NASA literature included 29 Technical Publications, 13 Conference Publications, 64 Technical Memorandums, 137 Contractor Reports, 166 Journal Articles and Book Publications, 479 Meeting Presentations, 50 Technical Talks, and 32 Patents.

Introduction

The NASA Langley Research Center is one of the Nation's leading laboratories for research and development in the sciences of aeronautics and space technology. Langley conducts basic and applied research in the areas of Airframe Systems, Aerodynamics, Atmospheric Science, and Structures and Materials.

This document contains a bibliography of Langley's publicly available scientific and technical research output for 1998 which is processed through the Center's Information Systems and Services Division, an integral part of NASA's Agency-wide Scientific and Technical Information (STI) system. The results of Langley's research are disseminated in a variety of NASA and non-NASA scientific and technical media and information systems. This document is intended to be a reference summary for researchers and a current awareness publication for the scientific, research, and academic community. Details of the availability of the research references in this document are found in the section, "Availability," on page vii.

Many Langley reports are available electronically on the Langley Technical Report Server (LTRS) at <http://techreports.larc.nasa.gov/ltrs/ltrs.html> or the Institute for Computer Applications in Science and Engineering (ICASE) Technical Report Server (ITRS) at <http://www.icase.edu/docs/library/itrs.html> via the World Wide Web (WWW). The relative Uniform Resource Locators are noted below citations for reports available electronically.

The citations are grouped by the Scientific and Technical Aerospace Reports (STAR) subject categories and listed alphabetically by author or innovator. The Langley organization to which the senior author or innovator is assigned and the Research and Technology Objectives and Plans (RTOP) number are noted below citations when appropriate and included in the indexes.

Patents listed are those which were issued in 1998 and owned by Langley Research Center.

Publication of some journal articles was not known at press time for the 1997 issue of this document. These articles are therefore listed in the 1998 issue.

Availability

<u>Category</u>	<u>Source</u>
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- 1** Babcock, P.; Schor, A.; and Rosch, G.: Reliability Modeling Methodology for Independent Approaches on Parallel Runways Safety Analysis. (NAS2-14361 Logistics Management Institute.) NASA CR-1998-207660, April 1998, 48 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/1998/cr/NASA-98-cr207660.pdf>
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- 29** Brauckmann, G. J.: X-34 Vehicle Aerodynamic Characteristics. Presented at 16th AIAA Applied Aerodynamics Meeting, June 15-18, 1998, Albuquerque, New Mexico. In Proceedings, AIAA Paper No. 98-2531.
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- 31** Campbell, R. L.: Efficient Viscous Design of Realistic Aircraft Configurations. Presented at 29th AIAA Fluid Dynamics Conference, June 15-18, 1998, Albuquerque, New Mexico. AIAA Paper No. 98-2539.
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- 32** Carle, A.; Fagan, M.; and Green, L. L.: Preliminary Results From the Application of Automatic Adjoint Code Generation to CFL3D. Presented at 7th AIAA/USAF/NASA/ISSMO Symposium on Multidisciplinary Analysis and Optimization, September 2-4, 1998, St. Louis, Missouri. AIAA Paper No. 98-4807.
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